

**IN THE SPECIFICATION**

Please replace the Abstract with the following Abstract:

--A method of processing a semiconductor device is provided with several steps, including the step of generating plasma in a processing chamber to form or process a thin film on a semiconductor device. The step of scanning, through a window, intensity modulated laser beam, which is modulated at a desired frequency inside the processing chamber where the semiconductor device is being processed. The step of receiving by a sensor through the window a back scattered light being scattered from fine particles suspended in the processing chamber by the scanning laser and detecting the desired frequency component from a signal outputted from the sensor. From the detected frequency component information relating to quantity, size, and distribution of the fine particles illuminated by the laser beam inside the processing chamber is obtained. This information is then outputted.